

§ 178.523

(8) 6PG1 for glass, porcelain, or stoneware receptacles within a protective fiber drum;

(9) 6PG2 for glass, porcelain, or stoneware receptacles within a protective fiberboard box;

(10) 6PH1 for glass, porcelain, or stoneware receptacles within a protective expanded plastic packaging; and

(11) 6PH2 for glass, porcelain, or stoneware receptacles within a protective solid plastic packaging.

(b) Construction requirements for composite packagings with inner receptacles of glass, porcelain, or stoneware are as follows:

(1) Inner receptacles must conform to the following requirements:

(i) Receptacles must be of suitable form (cylindrical or pear-shaped), be made of good quality materials free from any defect that could impair their strength, and be firmly secured in the outer packaging.

(ii) Any part of a closure likely to come into contact with the contents of the receptacle must be resistant to those contents. Closures must be fitted so as to be leakproof and secured to prevent any loosening during transportation. Vented closures must conform to § 173.24(f) of this subchapter.

(2) Protective packagings must conform to the following requirements:

(i) For receptacles with protective steel drum 6PA1, the drum must comply with § 178.504(b) of this subpart. However, the removable lid required for this type of packaging may be in the form of a cap.

(ii) For receptacles with protective packaging of steel crate or steel box 6PA2, the protective packaging must conform to the following:

(A) Section 178.512(b) of this subpart.

(B) In the case of cylindrical receptacles, the protective packaging must, when upright, rise above the receptacle and its closure; and

(C) If the protective crate surrounds a pear-shaped receptacle and is of matching shape, the protective packaging must be fitted with a protective cover (cap).

(iii) For receptacles with protective aluminum drum 6PB1, the require-

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ments of § 178.505(b) of this subpart apply to the protective packaging.

(iv) For receptacles with protective aluminum box or crate 6PB2, the requirements of § 178.512(b) of this subpart apply to the protective packaging.

(v) For receptacles with protective wooden box 6PC, the requirements of § 178.513(b) of this subpart apply to the protective packaging.

(vi) For receptacles with protective plywood drum 6PD1, the requirements of § 178.507(b) of this subpart apply to the protective packaging.

(vii) For receptacles with protective wickerwork hamper 6PD2, the wickerwork hamper must be properly made with material of good quality. The hamper must be fitted with a protective cover (cap) so as to prevent damage to the receptacle.

(viii) For receptacles with protective fiber drum 6PG1, the drum must conform to the requirements of § 178.508(b) of this subpart.

(ix) For receptacles with protective fiberboard box 6PG2, the requirements of § 178.516(b) of this subpart apply to the protective packaging.

(x) For receptacles with protective solid plastic or expanded plastic packaging 6PH1 or 6PH2, the requirements of § 178.517(b) of this subpart apply to the protective packaging. Solid protective plastic packaging must be manufactured from high-density polyethylene from some other comparable plastic material. The removable lid required for this type of packaging may be a cap.

(3) Quantity limitations are as follows:

(i) Maximum net capacity for packaging for liquids: 60 L (16 gallons).

(ii) Maximum net mass for packagings for solids: 75 kg (165 pounds).

Subpart M—Testing of Non-bulk Packagings and Packages

SOURCE: Amdt. 178–97, 55 FR 52723, Dec. 21, 1990, unless otherwise noted.

§ 178.600 Purpose and scope.

This subpart prescribes certain testing requirements for performance-oriented packagings identified in subpart L of this part.

[Amdt. 178-97, 55 FR 52717, Dec. 21, 1990, and amended by Amdt. 178-99, 58 FR 51534, Oct. 1, 1993]

§ 178.601 General requirements.

(a) *General.* The test procedures prescribed in this subpart are intended to ensure that packages containing hazardous materials can withstand normal conditions of transportation and are considered minimum requirements. Each packaging must be manufactured and assembled so as to be capable of successfully passing the prescribed tests and of conforming to the requirements of § 173.24 of this subchapter at all times while in transportation.

(b) *Responsibility.* It is the responsibility of the packaging manufacturer to assure that each package is capable of passing the prescribed tests. To the extent that a package assembly function, including final closure, is performed by the person who offers a hazardous material for transportation, that person is responsible for performing the function in accordance with §§ 173.22 and 178.2 of this subchapter.

(c) *Definitions.* For the purpose of this subpart:

(1) *Design qualification testing* is the performance of the drop, leakproofness, hydrostatic pressure, stacking, and cooperation tests, as applicable, prescribed in §§ 178.603, 178.604, 178.605, 178.606, or § 178.607, respectively, for each new or different packaging, at the start of production of that packaging.

(2) *Periodic retesting* is the performance of the drop, leakproofness, hydrostatic pressure, and stacking tests, as applicable, prescribed in §§ 178.603, 178.604, 178.605, or § 178.606, respectively, at the frequency specified in § 178.601(e) of this subpart.

(3) *Production testing* is the performance of the leakproofness test prescribed in § 178.604 of this subpart on each single or composite packaging intended to contain a liquid.

(4) *A different packaging* is one that differs (i.e. is not identical) from a pre-

viously produced packaging in structural design, size, material of construction, wall thickness or manner of construction but does not include:

(i) A packaging which differs only in surface treatment;

(ii) A combination packaging which differs only in that the outer packaging has been successfully tested with different inner packagings. A variety of such inner packagings may be assembled in this outer packaging without further testing;

(iii) A plastic packaging which differs only with regard to additives which conform to § 178.509(b)(3) or § 178.517(b)(4) or (5) of this part;

(iv) A combination packaging with inner packagings conforming to the provisions of paragraph (g) of this section;

(v) Packagings which differ from the design type only in their lesser design height; or

(vi) For a steel drum, variations in design elements which do not constitute a different design type under the provisions of paragraph (g)(8) of this section.

(d) *Design qualification testing.* The packaging manufacturer shall achieve successful test results for the design qualification testing at the start of production of each new or different packaging.

(e) *Periodic retesting.* The packaging manufacturer shall achieve successful test results for the periodic retesting at intervals established by the manufacturer of sufficient frequency to ensure that each packaging produced by the manufacturer is capable of passing the design qualification tests. Changes in retest frequency are subject to the approval of the Associate Administrator. For single or composite packagings, the periodic retests must be conducted at least once every 12 months. For combination packagings, the periodic retests must be conducted at least once every 24 months.

(f) *Test samples.* The manufacturer shall conduct the design qualification and periodic tests prescribed in this subpart using random samples of packagings, in the numbers specified in the appropriate test section. In addition, the leakproofness test, when required, shall be performed on each packaging